GitFormed

Goal

We want to build a source code repository hosting service. For MVP, we want to enable users some core functionalities of the product. Here are the use cases we will tackle during the first sprint (2 weeks)

Tasks

Registration

- As a guest, I want to create an account with GitFormed.

Email, username, and password will be used for registration. No email validation is required. Email and username must be unique.

Authentication

- As a user, I want to login to my account using email and password

Repositories

- As a guest/user, I want to see a list of existing repositories.
- As a guest/user, I want to sort the list in alphabetical, latest, number of watchers order.
- As a user, I want to see a list of my repositories.
- As a user, I want to see a list of repositories I am watching.

The list should not display more than 10 repositories at a time. For each repository, we want to display `username/repository_name`, `number of watchers`, and `date and time of creation`.

Create Repository

- As a user, I want to create a new repository.

The input will be the name of the repository. The name must match the pattern `[A-Za-z0-9-_]{5, 10}`. The name must be unique for the user.

Pull Request

- As the owner of a repository, I want to create a new pull request.

The input will be a simple text value denoting the `title` of the pull request

- As the owner of a repository, I want to see a list of pull requests.

The list should display the `id`, `title`, and `time of creation` of the pull request

Watch Repository

- As a user, I want to add myself as a watcher to an existing repository
- As a watcher of a repository, I want to be notified when a pull request is created in the repository

General Instructions

- This file should be included along with the source code.
- Each commit should include the state the tasks are in.

E.g.

```
Before working on registration:
`As a guest, I want to create an account with GitFormed. [Backlog]`

When working on registration:
`As a guest, I want to create an account with GitFormed. [In Progress]`

After completing registration:
`As a guest, I want to create an account with GitFormed. [Done]`
```

RunMeQuick

Goal

We want to build a cloud hosted code runner for better ease and faster velocity during prototyping. The product will allow users to enter a piece of code, allow them to choose a runtime(at least 4), and show the execution results. Here are the use cases we will tackle during the first sprint (2 weeks)

Tasks

Registration

- As a guest, I want to create an account with RunMeQuick.

Email, username, and password will be used for registration. No email validation is required. Email and username must be unique.

Authentication

- As a user, I want to login to my account using email and password

Code Execution

- As a guest/user, I want to execute a piece of code.

The code should be provided as text. File upload will not be supported for now. The code must be valid and complete for it to run successfully. The input field for the code need not support syntax highlighting and can be a simple text input. However, it must support atleast 10000 characters.

- As guest/user, I want to choose the runtime of my code

There should be a choice of runtime. Atleast 4 languages must be supported. For example, python, javascript, go, c++. Each runtime will execute a single request at a time. If php runtime is running user1's code, it will not run user2's code until it finishes with user1. When a code is submitted, the backend must immediately respond with 201 Created and should not block the Fronted.

- After submitting, I want to see status updates for my execution

The user should be shown the state his submission is in. `Queued`, `Executing`, `Execution Complete`. At `Execution Complete`, the user should be shown the result of the execution

- After submitting, I want to cancel execution as long as it has not started executing
- After submitting, I want to modify my code and resubmit

Any resubmission should cancel previous submissions if they are in `Queued` state

- As a guest/user, I want to see my previous executions and their result.

If it is a guest(not registered) he can only see the executions during the current session. If it is a user, they can see all their previous executions

General Instructions

- This file should be included along with the source code.
- Each commit should include the state the tasks are in.

E.g.

```
Before working on registration:
`As a guest, I want to create an account with RunMeQuick. [Backlog]`

When working on registration:
`As a guest, I want to create an account with RunMeQuick. [In Progress]`

After completing registration:
`As a guest, I want to create an account with RunMeQuick. [Done]`
```